#10 04/30/0350 OIPE

RAW SEQUENCE LISTING DATE: 10/01/2001
PATENT APPLICATION: US/09/809,524B TIME: 13:51:51

Input Set : A:\6114N.txt
Output Set: N:\CRF3\10012001\I809524B.raw

<110> APPLICANT: Lowery, David
Kennedy, Michael J
<120> TITLE OF INVENTION: Salmonella Vaccine Materials and Methods
<130> FILE REFERENCE: 28341/6114.N
C--> <140> CURRENT APPLICATION NUMBER: US/09/809,524B
C--> <141> CURRENT FILING DATE: 2001-09-17
<150> PRIOR APPLICATION NUMBER: 60/190,178
<151> PRIOR FILING DATE: 2000-03-17
<160> NUMBER OF SEQ ID NOS: 30
<170> SOFTWARE: PatentIn Ver. 2.0
<210> SEQ ID NO: 1
<211> LENGTH: 779
<212> TYPE: DNA
<213> ORGANISM: Salmonella dublin
<400> SEQUENCE: 1
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aatggcgtgc ttatgtcact tacctttccc atattaccaa tcatttacca gcagaagatt 180
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ggtttttaa ttgggttttg tgcggcggtt ccctttgggg ccgttgatat ggcggggttt 300
ctgcttgata ctttacgtgg cgcgacaatg ggtacgatat tcaattctac aatagaagct 360
gaaacctcac tttttggctt gcttttcagc cagtttttgt gtgttatttt ctttataagc 420
ggcggcatgg agtttatatt aaacattctg tatgagtcat atcaatattt accaccaggg 480
cgtactttat tatttgaccg gcaattttta aaatatatcc aggcagagtg gagaacgctt 540
tatcaattat gtgtcagttt ctctcttcct gccataatat gtatggtatt agccgatctg 600
gctttaggtc ttttaaatcg gtcggcacaa caattgaatg tgtttttctt ctcaatgccg 660
ctcaaaagta tattggttct actgacgctc ctgatctcat tcccttatgc tcttcatcac 720
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<212> TYPE: DNA
<213> ORGANISM: Salmonella typhimurium
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aatggcgtgc ttatgtcact tacctttccg atattaccaa tcatttacca gcagaagatt 180
atgatgcata ttggtaaaga ttacagttgg ttagggttag tcactggaga ggtgattatt 240
ggtttttcaa ttgggttttg tgcggcggtt ccctttgggg ccgttgatat ggcggggttt 300
ctgcttgata ctttacgtgg cgcgacaatg ggtacgatat tcaattctac aatagaagct 360
gaaacctcac tttttggctt gcttttcagc cagttcttgt gtgttatttt ctttataagc 420
ggcggcatgg agtttatatt aaacattctg tatgagtcat atcaatattt accaccaggg 480
cgtactttat tatttgacca gcaattttta aaatatatcc aggcagagtg gagaacgctt 540
tatcaattat gtatcagctt ctctcttcct gccataatat gtatggtatt agccgatctg 600
gctttaggtc ttttaaatcg gtcggcacaa caattgaatg tgtttttctt ctcaatgccg 660
ctcaaaagta tattggttct actgacgctc ctgatctcat tcccttatgc tcttcatcac 720
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<211> LENGTH: 749
<212> TYPE: DNA
<213> ORGANISM: Salmonella dublin
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gtggatcttt atcgctcatt gccagaggat gaggcgaatc aaatgctggc attacttatg 120
cagcatcata ttgatgcgga aaaaaaacag gaagaggacg gtgttacctt acgtgtcgag 180
cagtcgcagt ttattaatgc ggttgagcta cttagactta acggttatcc gcatcgtcag 240
tttacaacgg cggataagat gtttccggct aatcagttag tggtatcacc ccaggaagaa 300
cagcagaaga ttaatttttt aaaagaacaa agaattgaag gagtgctgag tcagatggag 360
ggcgtgatta atgcaaaagt gaccattgcg ctaccgactt atgatgaggg aagtaacgct 420
tctccgagct cagttgccgt atttataaaa tattcaccac aggtcaatat ggaggccttt 480
cgggtaaaaa ttaaggattt aatagagatg tcaatccctg ggttgcaata cagtaagatt 540
agtatcttga tgcagcctgc tgaattcaga atggtagctg acgtacccgc gagacaaaca 600
ttctggatta tggacgttat caacgccaat aaagggaagg tggagaagtg gttgatgaaa 660
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<213> ORGANISM: Salmonella typhimurium
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cagcatcata ttgatgcgga aaaaaaacag gaagaggatg gtgtaacctt acgtgtcgag 180
cagtcgcagt ttattaatgc ggttgagcta cttagactta acggttatcc gcataggcag 240
tttacaacgg cggataagat gtttccggct aatcagttag tggtatcacc ccaggaagaa 300
cagcagaaga ttaatttttt aaaagaacaa agaattgaag gaatgctgag tcagatggag 360
ggcgtgatta atgcaaaagt gaccattgcg ctaccgactt atgatgaggg aagtaacgct 420
tctccgagct cagttgccgt atttataaaa tattcacctc aggtcaatat ggaggccttt 480
cgggtaaaaa ttaaagattt aatagagatg tcaatccctg ggttgcaata cagtaagatt 540
agtatcttga tgcagcctgc tgaattcaga atggtagctg acgtacccgc gagacaaaca 600
ttctggatta tggacgttat caacgccaat aaagggaagg tggtgaagtg gttgatgaaa 660
taccttatc cgttgatgtt atcgttgaca ggactgttat taggagtggg catcctgatc 720
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<211> LENGTH: 1052
<212> TYPE: DNA
<213> ORGANISM: Salmonella dublin
<400> SEQUENCE: 5
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gatgagttat catggaaagg taatgacttc acccttttatg ccagacaaat gccattagca 120
gaggttttac atctgctctc agagaactat gatacggcta ttactattag cccattgata 180
acagctacat ttagtggaaa aattccgcct ggaccaccgg tcgatatttt gaataacctg 240
gcagcacaat atgatttgct tacctggttt gatggcagca tgttatatgt atatcctgca 300
tcgttattaa aacatcaggt tatcactttc aatattttat ctactggacg gttcattcat 360
tacttacgca gccagaatat cctttcatca ccgggatgcg aggttaaaga aattaccggt 420
accaaagctg tggaggtgag cggtgttccc agctgcctga ctcgtattag tcaattagct 480
tcagtgctgg ataatgcgtt aatcaaacga aaagacagtg cggtgagtgt aagtatatac 540

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201 acgcttaagt atgccactgc gatggatacc caataccaat atcgcgatca gtccgtcgtg 600
203 gttccagggg tcgtgagtgt attgcgtgag atgagtaaaa ccagcgtacc ggcgtcatcg 660
205 acgaacaatg gttcacccgc tacacaggca ttgcccatgt ttgctgccga cccacgccag 720
207 aatgcagtga tcgttcgtga ttatgcggcc aatatggccg ggtatcggaa acttatcaca 780
209 gaattagatc aacgccagca gatgatagag atttcggtga aaattatcga tgttaatgct 840
211 ggagatatta accagttagg catcgactgg ggaacggcag tgtcgctggg tggcaagaaa 900
213 attgcgttca atacaggttt gaatgacggt ggtgctagcg gttttttcaa cggtaatcag 960
215 cgatacctca aactttatgg tgcgtttgaa tgccctggaa aaaagctctc aggcttatgt 1020
217 actttcccag ccatctgtgg tgactttaaa ta 1052
219 <210> SEQ ID NO: 6
221 <211> LENGTH: 1052
223 <212> TYPE: DNA
225 <213> ORGANISM: Salmonella typhimurium
227 <400> SEQUENCE: 6
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231 gatgagttat catggaaagg taatgacttc acccttttatg ccagacaaat gccattagca 120
233 gaggttttac atctgctctc agagaactat gatacggcta ttactattag cccattgata 180
235 acagctacat ttagtggaaa aattccgcct ggaccaccgg tcgatatttt gaataacctg 240
237 gcagcacaat atgatttgct tacctggttt gatggcagca tgttatatgt atatcctgca 300
239 tcgttattaa aacatcaggt tatcactttc aatattttat ctactggacg gttcattcat 360
241 tacttacgca gccagaatat cctttcatca ccgggatgcg aggttaaaga aattaccggt 420
243 accaaagctg tggaggtgag cggtgttccc agctgcctga ctcgtattag tcaattagct 480
245 tcagtgctgg ataatgcgtt aatcaaacga aaagacagtg cggtgagtgt aagtatatac 540
247 acgcttaagt atgccactgc gatggatacc cagtaccaat atcgcgatca gtccgtcgtg 600
249 gttccagggg tcgttagtgt attgcgtgag atgagtaaaa ccagcgtccc gacgtcatcg 660
251 acgaacaatg gttcacccgc tacacaggca ttgcccatgt ttgctgccga cccacgccag 720
253 aatgcagtga tcgttcgtga ttatgcggcc aatatggccg ggtatcggaa actcatcaca 780
254 gaattagatc aacgccagca gatgatagag atttcggtga aaattatcga tgttaatgct 840
256 ggagatatta accagttagg catcgactgg ggaacggcag tgtcgctggg tggcaagaaa 900
258 attgcgttca atacaggttt gaatgacggt ggtgctagtg gtttttcaa cggtaatcag 960
260 cgatacctca aactttatgg tgcgtctgaa tgccctggaa aaaagctctc aggcttatgt 1020
262 actttcccag ccatctgtgg tgactttaaa ta 1052
264 <210> SEQ ID NO: 7
266 <211> LENGTH: 368
268 <212> TYPE: DNA
270 <213> ORGANISM: Salmonella typhimurium
272 <400> SEQUENCE: 7
274 atggattggg atctcattac tgaacgtaat attcagcttt ttattcaatt agcaggatta 60
276 gctgaacggc ctttagcaac caatatgttc tggcggcaag gacaatatga aacctatcta 120
278 aactatcata acggtcgtat tcacttatgt cagatactca agcaaacctt cttagacgaa 180
280 gaactgcttt ttaaagcgtt ggctaactgg aaacccgcag cgttccaggg tattcctcaa 240
282 cgattatttt tgttgcgcga tgggcttgca atgagttgtt ctccacctct ttccagctcc 300
284 gccgagctct ggttacgatt acatcatcga caaataaaat ttctggagtc gcaatgcgtt 360
286 catggtta 368
288 <210> SEQ ID NO: 8
290 <211> LENGTH: 28
292 <212> TYPE: DNA
294 <213> ORGANISM: Artificial Sequence
296 <220> FEATURE:

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<223> OTHER INFORMATION: Description of Artificial Sequence: primer

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<213> ORGANISM: Artificial Sequence

<220> FEATURE:

<223> OTHER INFORMATION: Description of Artificial Sequence: primer

<400> SEQUENCE: 9

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<212> TYPE: DNA

<213> ORGANISM: Artificial Sequence

<220> FEATURE:

<223> OTHER INFORMATION: Description of Artificial Sequence: primer

<400> SEQUENCE: 10

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<210> SEQ ID NO: 11

<211> LENGTH: 49

<212> TYPE: DNA

<213> ORGANISM: Artificial Sequence

<220> FEATURE:

<223> OTHER INFORMATION: Description of Artificial Sequence: primer

<400> SEQUENCE: 11

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<211> LENGTH: 49

<212> TYPE: DNA

<213> ORGANISM: Artificial Sequence

<220> FEATURE:

<223> OTHER INFORMATION: Description of Artificial Sequence: primer

<400> SEQUENCE: 12

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<210> SEQ ID NO: 13

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<212> TYPE: DNA

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<220> FEATURE:

<223> OTHER INFORMATION: Description of Artificial Sequence: primer

<400> SEQUENCE: 13

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<210> SEQ ID NO: 14

<211> LENGTH: 34

<212> TYPE: DNA

<213> ORGANISM: Artificial Sequence

<220> FEATURE:

<223> OTHER INFORMATION: Description of Artificial Sequence: primer

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PATENT APPLICATION: US/09/809,524B TIME: 13:51:51

Input Set : A:\6114N.txt
Output Set: N:\CRF3\10012001\I809524B.raw

395 <400> SEQUENCE: 14
397 gccaatctag actgcagaac cgagccagga gcaa 34
399 <210> SEQ ID NO: 15
401 <211> LENGTH: 46
403 <212> TYPE: DNA
405 <213> ORGANISM: Artificial Sequence
407 <220> FEATURE:
409 <223> OTHER INFORMATION: Description of Artificial Sequence: primer
411 <400> SEQUENCE: 15
413 cacctcggga tcaggtcggc tcataaaaaa ttaatcttct gctgtt 46
415 <210> SEQ ID NO: 16
417 <211> LENGTH: 46
419 <212> TYPE: DNA
421 <213> ORGANISM: Artificial Sequence
423 <220> FEATURE:
425 <223> OTHER INFORMATION: Description of Artificial Sequence: primer
427 <400> SEQUENCE: 16
429 aacagcagaa gattaatttt ttatgagccg acctgatccc gaggtg 46
431 <210> SEQ ID NO: 17
433 <211> LENGTH: 35
435 <212> TYPE: DNA
437 <213> ORGANISM: Artificial Sequence
439 <220> FEATURE:
441 <223> OTHER INFORMATION: Description of Artificial Sequence: primer
443 <400> SEQUENCE: 17
444 gccaatctag agaagataat ctcggtaaga gaagt 35
446 <210> SEQ ID NO: 18
448 <211> LENGTH: 37
450 <212> TYPE: DNA
452 <213> ORGANISM: Artificial Sequence
454 <220> FEATURE:
456 <223> OTHER INFORMATION: Description of Artificial Sequence: primer
458 <400> SEQUENCE: 18
460 gccaatctag attcaaattg taagttttta tgtcaat 37
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464 <211> LENGTH: 50
466 <212> TYPE: DNA
468 <213> ORGANISM: Artificial Sequence
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472 <223> OTHER INFORMATION: Description of Artificial Sequence: primer
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482 <212> TYPE: DNA
484 <213> ORGANISM: Artificial Sequence
486 <220> FEATURE:
488 <223> OTHER INFORMATION: Description of Artificial Sequence: primer
490 <400> SEQUENCE: 20

VERIFICATION SUMMARY DATE: 10/01/2001
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Input Set : A:\6114N.txt
Output Set: N:\CRF3\10012001\I809524B.raw

L:13 M:270 C: Current Application Number differs, Replaced Application Number
L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date